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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/593,629

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Masahide Miura

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EXAMINER

SMITH, NICHOLAS A

ART UNIT

PAPER NUMBER

1723

NOTIFICATION DATE

DELIVERY MODE

12/27/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/593,629	Applicant(s) MIURA, MASAhide	
	Examiner NICHOLAS A. SMITH	Art Unit 1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/15/2010</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see remarks, pp. 5-6, filed 24 September 2010, with respect to claims 1-11 have been fully considered and are persuasive. The 35 USC 102(b) rejection under WO 03/037506 and 35 USC 102(e) under Kuno (US 20040087440 A1) have been withdrawn.

Terminal Disclaimer

2. The terminal disclaimer filed on 24 September 2010 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US Patent No. 7,632,776 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Double Patenting

3. Claims 1-12 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 6, 9 and 11-15 of copending Application No. 10/589669. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of App.'669 are more specific with designating a ceria-zirconia solid solution. The molar ratio is disclosed in Example 1 of the App'669's specification.

4. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 6-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "wherein the content of ceria in the particulate support being 40 to 65 mol% or less" is indefinite. It is unknown what the modifier "or less" is modifying, could be less than 65% or less than 40%. Claim 6 recites the limitations "the zirconia" and "the ceria" in lines 4-7. There is insufficient antecedent basis for this limitation in the claim.

Allowable Subject Matter

7. In regards to claim(s) 1-5 and 12, if the above ODP rejection is overcome, the following are statements of reasons for the indication of allowable subject matter: In regards to claim(s) 1, prior art does not explicitly disclose, teach or suggest a method for producing a metal oxide particle comprising a core part and a surface layer differing in composition comprising adjusting the pH of a sol to be closer to the isoelectric point of a population of first colloidal particles and then adjusting the pH of a sol to be closer to the isoelectric point of said population of second colloidal particles than to the isoelectric point of said population of first colloid particles. Please note that adjustment is considered to be a dropwise adjustment as illustrated in examples 1 and 2. Kuno is the closest prior art; Kuno discloses first and second populations of colloidal particles and discloses a single stage of pH adjustment (para [0053]); however, Kuno does not explicitly disclose a second stage of pH adjustment. Shiroto et al. (US 4422960 A) discloses a two stage pH adjustment of a metal oxide (col. 24, line 31 to col. 25, line 4),

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but not of a population of first colloidal particles and a population of second colloidal particles.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICHOLAS A. SMITH whose telephone number is (571)272-8760. The examiner can normally be reached on 8:30 AM to 5:00 PM, Monday through Friday.

9. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexa Neckel can be reached on (571)-272-1446. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NAS

/Alexa D. Neckel/
Supervisory Patent Examiner, Art Unit 1723